Claims 1-18 (Canceled).

19. (Currently amended) A method for reducing an occurrence of fibrillation of a heart, comprising:

detecting a premature contraction of the heart for a plurality of heart beats characterized by nonsustained tachycardia; and

applying an electric stimulus to a region of the heart ~~that is likely~~ determined to contain a fastest activating region.

20. (Original) A method according to Claim 19 wherein the electric stimulus comprises one of a defibrillation stimulus and a pacing stimulus.

21. (Currently amended) ~~A method according to Claim 19~~ A method for reducing an occurrence of fibrillation of a heart, comprising:

detecting a premature contraction of the heart for a plurality of heart beats characterized by nonsustained tachycardia; and

applying an electric stimulus to a region of the heart that is likely to contain a fastest activating region, wherein a location of the fastest activating region is determined by:

inducing fibrillation of the heart; and

determining at least one of a monophasic activation potential (MAP) reading associated with the fibrillating heart, a refractory period associated with the heart using premature stimulation, and a power spectrum analysis to provide a spectrum with a peak power at a highest frequency.

22. (Original) A method according to Claim 19 wherein the fastest activating region comprises a reentrant region having a refractory period that is less than areas adjacent to the reentrant region.

23. (Currently amended) A method according to Claim 19 wherein a first wavefront comprising a mother rotor propagates along a closed pathway on the fibrillating heart, wherein the first wavefront generates at least a second wavefront that propagates on the fibrillating heart outside the fastest activating region.

24. (Currently amended) A method according to Claim [[19]] 22 wherein the reentrant region comprises a closed pathway on the fibrillating heart.

25. (Original) A method according to Claim 24 wherein a wavefront propagates along the closed pathway from a starting point on the closed pathway to an ending point on the closed pathway.

26. (Original) A method according to Claim 25 wherein the starting point and the ending point are adjacent to one another on the closed pathway.

27. (Currently amended) A method for reducing an occurrence of fibrillation of a heart, comprising:

during heart activity characterized by at least one of normal heartbeat activity, premature heartbeat activity, or nonsustained tachycardia activity, applying an electrical stimulus to a region of the heart ~~containing~~ determined to contain a fastest activating region.

28. (Original) A method according to Claim 27 wherein the fastest activating region comprises a reentrant region having a refractory period that is less than areas adjacent to the reentrant region.

29. (Currently amended) A method according to Claim 27 wherein a first wavefront comprising a mother rotor propagates along a closed pathway on the heart, wherein the first wavefront generates at least a second wavefront that propagates on the heart outside the fastest activating region.

30. (Currently amended) A method according to Claim [[27]] 28 wherein the reentrant region comprises a closed pathway on the heart.

31. (Currently amended) A method according to Claim [[28]] 30 wherein a wavefront propagates along the closed pathway from a starting point on the closed pathway to an ending point on the closed pathway.

32. (Currently amended) A method according to Claim [[29]] 31 wherein the starting point and the ending point are adjacent to one another on the closed pathway.

33. (Original) A method according to Claim 27 wherein a location of the fastest activating region is determined by:

determining a refractory period associated with the heart using premature stimulation.

34. (Original) A method according to Claim 28 wherein a location of the fastest activating region is determined by:

determining an activation recovery interval measurement associated with the heart.

35. (Original) A method according to Claim 27 wherein a location of the fastest activating region is determined by:

determining a Monophasic activation potential (MAP) reading of the heart.

36. (Currently amended) ~~A method according to Claim 27~~ A method for reducing an occurrence of fibrillation of a heart, comprising:

during heart activity characterized by at least one of normal heartbeat activity, premature heartbeat activity, or nonsustained tachycardia activity, applying an electrical stimulus to a region of the heart containing a fastest activating region, wherein a location of the fastest activating region is determined by:

inducing fibrillation of the heart; and

determining at least one of a monophasic activation potential (MAP) reading associated with the fibrillating heart, a refractory period associated with the heart using premature stimulation, and a power spectrum analysis to provide a spectrum with a peak power at a highest frequency.

Claims 37-54 (Canceled).

55. (Currently amended) A system for reducing an occurrence of fibrillation of a heart, comprising:

means for detecting a premature contraction of the heart for a plurality of heart beats characterized by nonsustained tachycardia; and

means for applying an electrical stimulus to a region of the heart not in fibrillation ~~likely~~ determined to contain a fastest activating region.

56. (Currently amended) ~~A system according to Claim 55 further comprising:~~ A system for reducing an occurrence of fibrillation of a heart, comprising:

means for detecting a premature contraction of the heart for a plurality of heart beats characterized by nonsustained tachycardia;

means for applying an electrical stimulus to a region of the heart not in fibrillation likely to contain a fastest activating region;

means for inducing fibrillation of the heart; and

means for determining at least one of a monophasic activation potential (MAP) reading associated with the fibrillating heart, a refractory period associated with the heart using premature stimulation, and a power spectrum analysis to provide a spectrum with a peak power at a highest frequency.

57. (Original) A system according to Claim 55 wherein the fastest activating region comprises a reentrant region having a refractory period that is less than areas adjacent to the reentrant region.

58. (Currently amended) A system according to Claim 55 wherein a first wavefront comprising a mother rotor propagates along a closed pathway on the heart, wherein the first wavefront generates at least a second wavefront that propagates on the heart outside the fastest activating region.

59. (Currently amended) A system according to Claim [[55]] 57 wherein the reentrant region comprises a closed pathway on the heart.

60. (Original) A system according to Claim 59 wherein a wavefront propagates along the closed pathway from a starting point on the closed pathway to an ending point on the closed pathway.

61. (Original) A system according to Claim 60 wherein the starting point and the ending point are adjacent to one another on the closed pathway.

62. (Currently amended) A system for reducing an occurrence of fibrillation of a heart, comprising:

means for applying, ~~during fibrillation~~ during heart activity characterized by at least one of normal heartbeat activity, premature heartbeat activity, or nonsustained tachycardia activity, an electrical stimulus to a region of a heart ~~that is likely~~ determined to contain a fastest activating region of the heart.

63. (Original) A system according to Claim 62 wherein the fastest activating region comprises a reentrant region having a refractory period that is less than areas adjacent to the reentrant region.

64. (Currently amended) A system according to Claim 63 wherein a first wavefront comprising a mother rotor propagates along a closed pathway on the fibrillating heart, wherein the first wavefront generates at least a second wavefront that propagates on the heart outside the fastest activating region.

65. (Currently amended) A system according to Claim [[62]] 63 wherein the reentrant region comprises a closed pathway on the heart.

66. (Original) A system according to Claim 65 wherein a wavefront propagates along the closed pathway from a starting point on the closed pathway to an ending point on the closed pathway.

67. (Original) A system according to Claim 66 wherein the starting point and the ending point are adjacent to one another on the closed pathway.

68. (Original) A system according to Claim 62 further comprising:

means for determining a refractory period associated with the heart using premature stimulation.

69. (Original) A system according to Claim 62 further comprising:

means for determining an activation recovery interval measurement associated with the heart.

70. (Original) A system according to Claim 62 further comprising:

determining a Monophasic activation potential (MAP) reading of the heart.

71. (Original) A system according to Claim 62 further comprising:

means for inducing fibrillation of the heart; and

means for determining a refractory period associated with the heart using premature stimulation.

72. (Currently amended) ~~A system according to Claim 62 further comprising:~~ A system for reducing an occurrence of fibrillation of a heart, comprising:

means for applying, during heart activity characterized by at least one of normal heartbeat activity, premature heartbeat activity, or nonsustained tachycardia activity, an electrical stimulus to a region of a heart that is likely to contain a fastest activating region of the heart;

means for inducing fibrillation of the heart; and

means for determining at least one of a monophasic activation potential (MAP) reading associated with the fibrillating heart, a refractory period associated with the heart using premature stimulation, and a power spectrum analysis to provide a spectrum with a peak power at a highest frequency.

Claims 73-90 (Canceled).

91. (Currently amended) A computer program product for reducing an occurrence of fibrillation of a heart, comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to detect a premature contraction of the heart for a plurality of heart beats characterized by nonsustained tachycardia; and

computer readable program code configured to apply a defibrillation stimulus to a region of the heart not in fibrillation ~~that is likely~~ determined to contain a fastest activating region.

92. (Original) A computer program product according to Claim 91 further comprising computer readable program code configured to determine the region of the heart likely to contain the fastest activating region including:

computer readable program code configured to induce fibrillation of the heart; and

computer readable program code configured to determine at least one of a monophasic activation potential (MAP) reading associated with the fibrillating heart,

a refractory period associated with the heart using premature stimulation, and a power spectrum analysis to provide a spectrum with a peak power at a highest frequency.

93. (Original) A computer program product according to Claim 91 wherein the fastest activating region comprises a reentrant region having a refractory period that is less than areas adjacent to the reentrant region.

94. (Currently amended) A computer program product according to Claim 91 wherein a first wavefront comprising a mother rotor propagates along a closed pathway on the fibrillating heart, wherein the first wavefront generates at least a second wavefront that propagates on the fibrillating heart outside the fastest activating region.

95. (Currently amended) A computer program product according to Claim [[91]] 93 wherein the reentrant region comprises a closed pathway on the fibrillating heart.

96. (Original) A computer program product according to Claim 95 wherein a wavefront propagates along the closed pathway from a starting point on the closed pathway to an ending point on the closed pathway.

97. (Original) A computer program product according to Claim 96 wherein the starting point and the ending point are adjacent to one another on the closed pathway.

98. (Currently amended) A computer program product for reducing an occurrence of fibrillation of a heart, comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to apply, during heart activity characterized by at least one of normal heartbeat activity, premature heartbeat

activity, or nonsustained tachycardia activity, an electrical stimulus to a region of the heart not in fibrillation ~~that is likely~~ determined to contain a fastest activating region.

99. (Original) A computer program product according to Claim 98 wherein the fastest activating region comprises a reentrant region having a refractory period that is less than areas adjacent to the reentrant region.

100. (Currently amended) A computer program product according to Claim 98 wherein a first wavefront comprising a mother rotor propagates along a closed pathway on the fibrillating heart, wherein the first wavefront generates at least a second wavefront that propagates on the fibrillating heart outside the fastest activating region.

101. (Currently amended) A computer program product according to Claim [[98]] 99 wherein the reentrant region comprises a closed pathway on the fibrillating heart.

102. (Original) A computer program product according to Claim 101 wherein a wavefront propagates along the closed pathway from a starting point on the closed pathway to an ending point on the closed pathway.

103. (Original) A computer program product according to Claim 102 wherein the starting point and the ending point are adjacent to one another on the closed pathway.

104. (Original) A computer program product according to Claim 98 further comprising computer readable program code configured to determine the region of the heart likely to contain the fastest activating region including:

computer readable program code configured to determine a refractory period associated with the fibrillating heart using premature stimulation.

105. (Original) A computer program product according to Claim 98 further comprising computer readable program code configured to determine the region of the heart likely to contain the fastest activating region including:

computer readable program code configured to determine an activation recovery interval measurement associated with the fibrillating heart.

106. (Original) A computer program product according to Claim 98 further comprising computer readable program code configured to determine the region of the heart likely to contain the fastest activating region including:

computer readable program code configured to determining a Monophasic activation potential (MAP) reading associated with the fibrillating heart.

107. (Currently amended) ~~A computer program product according to Claim 98 further comprising computer readable program code configured to determine the region of the heart likely to contain the fastest activating region including:~~ A computer program product for reducing an occurrence of fibrillation of a heart, comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to apply, during heart activity characterized by at least one of normal heartbeat activity, premature heartbeat activity, or nonsustained tachycardia activity, an electrical stimulus to a region of the heart not in fibrillation that is likely to contain a fastest activating region;

computer readable program code configured to induce fibrillation of the heart; and

computer readable program code configured to determine at least one of a monophasic activation potential (MAP) reading associated with the fibrillating heart, a refractory period associated with the heart using premature stimulation, and a power spectrum analysis to provide a spectrum with a peak power at a highest frequency.